

Willoughby Lake, Vt., a Candidate for the Title of "Richest Fern Locality"

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In the early numbers of the Fern Bulletin several local fern floras were published in friendly competition for the title of "Richest Fern Locality." The ferns of Scolopendrium Lake in Jamesville, N. Y., were listed in the October, 1897, number by L. M. Underwood. This was followed in the next number by Mrs. Terry's account of her collections in Dorset, Vt., and a little later by an article on the ferns of Pittsford, Vt., by Miss Slosson. In 1905 Mrs. Terry published a supplement to her Dorset list adding two new species and several forms and hybrids. Two of these regions are unique in rock formation and soil character, the other two are largely typical of much of the limy hill country of New York and New England. A brief comparison of the lists from these four localities may not be wholly without interest.

As a basis for such a comparison it is necessary to adopt some ruling as to what shall be counted as distinct species. *Dryopteris Clintoniana* and *D. intermedia*, both of which were counted as varieties in the early lists, are now generally rated as species. That member of the genus that was once called var. *dilatata* and more recently var. *americana* seems to me to deserve specific rank, and it is so counted in this article, though as far as I know it has never been given a specific name. It is clearly impossible, with the information at hand, to tell how the early lists would be affected by Prof. Butters's segregation of *Athyrium Filix-femina*, so for the present purpose I have adhered to the old name. I have omitted all hybrids, including *Dryopteris Boottii*. The Ophioglossaceae are left for separate comparison at the end of the article.

Proceeding upon this basis I find that Underwood's list shows 24 species in the immediate vicinity of Scolopendrium Lake and 29 included by extending the area under consideration to a diameter of three miles. Three species not mentioned in Dr. Underwood's article were listed at the field meeting of the American Fern Society in 1915, making 32 species for the whole Green Lakes region. Mrs. Terry named 34 species within walking distance of Dorset; Miss Slosson also gives 34 for Pittsford, and the Willoughby list has 35.

Twenty-seven species are common to all four localities, *Polypodium vulgare*, *Adiantum pedatum*, *Pteridium latiusculum*, *Cryptogramma Stelleri*, *Camptosorus rhizophyllus*, *Asplenium Trichomanes*, *A. Ruta-muraria*, *Athyrium acrostichoides*, *A. Filix-femina*, *Phegopteris Dryopteris*, *Dryopteris Thelypteris*, *D. noveboracensis*, *D. cristata*, *D. Clintoniana*, *D. spinulosa*, *D. intermedia*, *D. Goldiana*, *D. marginalis*. *Polystichum acrostichoides*, *Cystopteris bulbifera*, *C. fragilis*, *Dicksonia punctilobula*, *Onoclea sensibilis*, *Pteretis nodulosa*, *Osmunda regalis*, *O. cinnamomea*, *O. Claytoniana*.

Scolopendrium vulgare is the particular prize of the Green Lakes region. *Phegopteris hexagonoptera*, which is not reported from either of the Vermont stations, is included in Underwood's list but was not found by the Fern Society members in 1915. Dorset has *Polystichum Braunii* while Pittsford has *Pellaea atropurpurea*, otherwise the lists for these localities are practically identical. Willoughby has both these species and, thanks to its boreal conditions, three species not found in any of the other localities, *Asplenium viride*, *Woodsia alpina* and *W. glabella*. All but Willoughby have *Asplenium platyneuron* and *Athyrium angustifolium* and these might be added to the Willoughby list by extending the area to a length of fifteen miles or so. There are four other species which are found in two or more of the stations.

The general similarity of the four lists is shown by the fact that the four combined include only 40 species, which is only 6 less than the list for all New England and New York, north of Connecticut. The missing six are *Dryopteris fragrans*, *D. Filix-mas* and four coastal plain species, namely the two Woodwardias, *Dryopteris simulata*, and *Lygodium*.

All the stations report *Ophioglossum vulgatum*. Of the seven *Botrychiums* named in Gray's Manual the Green Lakes and Willoughby have all except *B. angustisegmentum*. The other two localities lack *B. Lunaria*, and Dorset fails to report *B. simplex*. It is hardly conceivable that it is not there.

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The Irresistible Charm of the Ferns

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"Why a fern should fill one mind with strong emotion and a spray of moss another" wrote Philip Henry Gosse in his "Romance of Natural History" nearly sixty years ago "we can give no reason. Yet that such is a fact every admirer of nature who has an element of poetry in his soul will admit." "The desire" said Humboldt "which we feel to behold certain objects, is not excited solely by their grandeur, their beauty, or their importance. In each individual this desire is interwoven with pleasing impressions of youth, with early predilections for particular pursuits and the love of an active life."

How vividly I recall a most eventful walk with a congenial friend and nature-lover on a certain crisp and sunny autumn day many years ago, to a charming bit of woodland just across the Merrimac River from Newburyport! Climbing a stone wall, in a few minutes